

# A new genre of tires: Call 'em 'sweet' and 'green'

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Motorists may be driving on the world's first "green" tires within the next few years, as partnerships between tire companies and biotechnology firms make it possible to produce key raw materials for tires from sugar rather than petroleum or rubber trees. Those new bio-based tires — already available as prototypes— are the topic of an article in the current edition of *Chemical & Engineering News (C&EN)*, the weekly newsmagazine of the American Chemical Society.

C&EN Senior Business Editor Melody M. Bomgardner explains that tight supplies and high prices for the natural [rubber](#) and synthetic rubber used to make tires — almost 1 billion annually worldwide —are fostering the drive toward renewable, sustainable sources for raw materials. [Petroleum](#), for instance, is the traditional source for raw materials needed to make tires, with a single tire requiring almost 7 gallons of oil. But changes in oil-refining practices have reduced supplies of those raw materials.

The article describes how companies like Goodyear and Michelin have teamed up with biotechnology firms to genetically engineer microbes that produce the key [raw materials](#) for rubber from sugar. Goodyear's partner Genencor, for example, is making microbes that mimic rubber trees' natural processes to make latex rubber. Goodyear has already produced prototype tires with rubber made from sugar. Bomgardner explains that companies hope [sugar](#) will buffer them against future shortages of natural and synthetic ingredients, with "sweet" tires making a debut within 3-5 years.

**More information:** Making Rubber From Renewables,  
[cen.acs.org/articles/89/i50/Making-Rubber-From-Renewables.html](https://cen.acs.org/articles/89/i50/Making-Rubber-From-Renewables.html)

Provided by American Chemical Society

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